DEVICE TO GUARANTEE THE TENSION AND ACCESS TO THE REVERSE FACE OF A STRETCHED CANVAS

The present invention relates to a device intended to promote access to the reverse face of a stretched canvas, constituting in particular a wall such as for example a ceiling, and to ensure the tension of this canvas.

It is known that stretched canvasses have been used for some years to constitute walls, such as for example ceilings or mural walls. They are also used for constituting decorative elements, for example of cylindrical shape such as columns, or elements in volume of any shape, most of the time of revolution.

In certain of these applications, transparent or translucent canvasses are called upon, this making it possible to include therewith means for illumination which enhance them by transparency. It will be appreciated that, under these conditions, the problem of cleaning and maintenance, particularly of the illumination means and therefore of the access to the reverse face of these canvasses, is raised.

Up to the present time, the various maintenance operations were carried out by previously dismantling the canvasses from the frames serving to ensure tension thereof. Now, it is known that such an operation, although it is simple and rapid to carry out when it is effected by a professional, cannot be effected efficiently by a simple consumer who does not have available, on the one hand, the know-how or, on the other hand, the necessary tools.

Patent US-A-2 302 547 for example proposed a device ensuring fixation of a decorative supple wall on a mural wall employing zipper-type closures, in which the tension of the canvas is ensured by tighteners which are applied at the lower corners of the canvas.

It is an object of the present invention to propose guaranteeing the tension of the canvas by means of the closure itself, to the exclusion of any other tensioning element thereof.

The present invention thus has for its object a device intended to guarantee the tension and free access to the reverse face of a canvas stretched on support means, and constituting a lining element, and in particular a wall or ceiling element, comprising at least one mechanical closure, of the zipper type, which extends over at least a part of at least one of the dimensions of said wall, characterized in that the canvas is constituted by an elastic material and in that its dimensions, before being placed under tension, are less than those of the support means (5a, 5b).

The dimension of the canvas, in the direction in which the closure extends, will preferably be less than that of its support means by a quantity included between 0.5 and 3% and preferably of the order of 2%. Similarly, the dimension of the canvas in the direction perpendicular to that in which the closure extends, may be less than that of its support means by a quantity included between 0.5 and 15% and preferably of the order of 7%.

The canvas will preferably be constituted by polyvinyl chloride or PVC.

The wall element may present the shape of a cylinder of revolution and the zipper-type closure will preferably be disposed along one of the generatrices of this element. The base of the cylinder may be of any shape, and in particular polygonal.

Fixation of the mechanical closure on the canvas will preferably be effected by high frequency welding, but may equally well be carried out by any other means and in particular by adhesion or stitching.

A form of embodiment of the present invention will be described hereinafter by way of non-limiting example, with reference to the accompanying drawings, in which:

Figure 1 is a view in perspective of a cylindrical luminous element with hexagonal base which is equipped with a device for access and tensioning according to the invention.

Figure 2 is a view in perspective of the implementation of the access and tensioning device according to the invention.

Figure 3 is a plan view of a variant embodiment of the access and tensioning device according to the invention.

Figure 3a is another variant embodiment of the invention in which closures are disposed along each of the sides of a canvas intended to constitute in particular a mural wall.

Figure 4 is a plan view of another variant embodiment of the access and tensioning device according to the invention.

Figure 1 shows a decorative element 1 of cylindrical shape, which is constituted by two hexagonal support plates, namely an upper plate 5a and a lower plate 5b on which a canvas 3 is stretched.

The canvas 3 used is made of a deformable and elastic material, such as, preferably, polyvinyl chloride, commonly called PVC. In the present form of embodiment, the canvas is of translucent type and is formed by six widths 8 of which the width corresponds to each of the sides of the support plates 5a and 5b and which are joined together so that their connection is effected along the generatrix joining each of the angles of the upper (5a) and lower (5b) plates. At the centre of the decorative element 1, there have been disposed illumination means constituted for example by a rectilinear luminous tube 9 which is

maintained along the longitudinal axis yy' of the element 1 by means not shown in the drawing.

According to the invention, there has been disposed, along one of the generatrices of connection of the different widths 8, a mechanical closure 6 (of the so-called "zip" type) which extends from the lower plate 5b towards the upper plate 5a, so that closure is in that case effected from the lower part towards the upper part.

Under these conditions, it will be understood that the mechanical closure 6 substantially merges with the line of connection of the widths 8, and that it is consequently virtually invisible to an observer's eyes. In order to render it even more undetectable, the width of the other lines of connection may be increased, so that even an attentive observer will not be able to distinguish these lines from one another.

At least one of the dimensions of the canvas will be made to be less than that of the corresponding elements which support it. For example, the height thereof (i.e. in a dimension in whose direction the closure 6 extends) will be less by 2% than the spaced apart relationship of the plates 5a, 5b.

Similarly, the length of the canvas in the other dimension, i.e. perpendicularly to the direction of the closure 6, will be less by 7% than the perimeter of the hexagonal bases 5a and 5b. In this way, when the mechanical closure 6 is closed, the tension of the canvas will be guaranteed both in height and in width.

The present invention thus allows a user to have an easy and immediate access, on the one hand, to the reverse face of the stretched canvas 3, particularly in order to clean it or remove therefrom parasites or insects that may cover it and become visible by transparency, and, on the other hand, to the illumination system 9 in order to ensure cleaning and maintenance thereof, and

this without being obliged to call upon the services of a professional, beforehand.

Of course, the present invention may be implemented on elements of very diverse shapes, other than cylindrical shapes.

For example, it may thus be used on an element 1 such as that shown in Figure 2, which is also constituted by two lower (5a) and upper (5b) (sic) plates on which the canvas 8 is stretched. These two plates are octogonal in shape and the lower plate 5b is of smaller dimensions that the upper plate 5a. The two plates are aligned with respect to each other so that the eight sides thus formed are each symmetrical with respect to a plane passing through axis yy'. The canvas 3 is constituted by eight widths 8 which are joined together so that their connection is effected along the line joining each of the angles of the upper (5a) and lower (5b) plates.

According to the invention and as previously, the mechanical closure 6 is disposed on one of the lines of join of the different widths 8, and this for aesthetic reasons.

The closure 6 may, of course, equally well be disposed on one of the sides, for example in the middle thereof.

Of course, the present invention is applicable to elements other than those of caisson type previously mentioned and might for example be used in relation with walls, particularly mural walls or ceilings.

For example, according to the invention, as shown in Figure 3, a mechanical closure 6 may be disposed along the longitudinal axis of a ceiling constituted by a stretched canvas 3, at a short distance from of the sides thereof. The closure 6 may equally well be disposed at the centre of the ceiling or along the transverse axis thereof.

According to the invention, as shown in Figure 3a, there may be disposed on certain of the sides of a canvas 3 stretched on slats, and which constitutes a ceiling, one or more mechanical closures 6a, 6b, 6c thus allowing a user to have access to the reverse face of the canvas 3 or to that part of the ceiling located thereabove.

Furthermore, it is known that there exist certain configurations of stretched canvasses in which, as shown in Figure 4, a particular canvas element 10 is disposed in the middle of a different canvas 14, these canvas elements being joined by a zipper-type closure 6. This arrangement may for example make it possible to constitute a trap for access to the concealed part of a ceiling. The invention also allows a user to replace one canvas element by another, as desired, and this rapidly and easily, without to that end being obliged to call upon the services of a professional.

The canvas elements 10 and 14 may be constituted by canvasses of different colour or surface appearance, this also procuring advantages from the aesthetic standpoint.